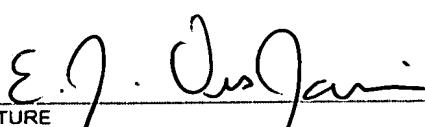


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|---|---|---|
| <b>TRANSMITTAL LETTER TO THE UNITED STATES<br/>DESIGNATED/ELECTED OFFICE (DO/EO/US)<br/>CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>   |   | <b>ATTORNEY'S DOCKET NUMBER</b><br><b>54-000410US</b> |
| INTERNATIONAL APPLICATION NO.<br><b>PCT/US2004/022061</b>   | INTERNATIONAL FILING DATE<br><b>7 July 2004</b> | PRIORITY DATE CLAIMED<br><b>7 July 2003</b>           |
| TITLE OF INVENTION <b>COMPOSITIONS OF ORTHOGONAL LEUCYL-TRNA AND AMINOACYL-TRNA SYNTHETASE PAIRS AND USES THEREOF</b>   |   |   |
| APPLICANT(S) FOR DO/EO/US <b>J. Christopher Anderson and Peter G. Schultz</b>   |   |   |
| Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:   |   |   |
| <p>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</p> <p>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</p> <p>3. <input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</p> <p>4. <input type="checkbox"/> The US has been elected (Article 31).</p> <p>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))<br/>       a. <input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).<br/>       b. <input type="checkbox"/> has been communicated by the International Bureau.<br/>       c. <input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</p> <p>6. <input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).<br/>       a. <input type="checkbox"/> is attached hereto.<br/>       b. <input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</p> <p>7. <input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))<br/>       a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).<br/>       b. <input type="checkbox"/> have been communicated by the International Bureau.<br/>       c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.<br/>       d. <input type="checkbox"/> have not been made and will not be made.</p> <p>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).</p> <p>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)). <b>(Signed)</b></p> <p>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</p> <p>Items 11 to 20 below concern document(s) or information included:</p> <p>11. <input type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</p> <p>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</p> <p>13. <input checked="" type="checkbox"/> A preliminary amendment.</p> <p>14. <input checked="" type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</p> <p>15. <input type="checkbox"/> A substitute specification.</p> <p>16. <input type="checkbox"/> A power of attorney and/or change of address letter.</p> <p>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13/er.2 and 37 CFR 1.821- 1.825.</p> <p>18. <input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</p> <p>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</p> <p>20. <input type="checkbox"/> Other items or information:</p> |   |   |

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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|  |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
|--|--------------|---|--------------|---|-----------|------------------------|----|--|--|-----------------------|----|--|--|
| U.S. APPLICATION NO. (if known, see 37 CFR 1.5)<br><b>10/563655</b><br>Not Yet Known   |              | INTERNATIONAL APPLICATION NO.<br>PCT/US2004/022061                            |              | ATTORNEY'S DOCKET NUMBER<br>54-000410US |           |                        |    |  |  |                       |    |  |  |
| 21. The following fees are submitted:  |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| <input checked="" type="checkbox"/> a) Basic national fee..... \$300.00<br><input checked="" type="checkbox"/> b) Examination fee..... \$200.00<br><input checked="" type="checkbox"/> c) Search fee..... \$500.00   |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| <b>TOTAL OF ABOVE CALCULATIONS = \$1000.00</b>   |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| <input checked="" type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.  |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| Total Sheets   | Extra sheets | Number of each additional 50 or fraction thereof (round up to a whole number) |              | RATE                                    |           |                        |    |  |  |                       |    |  |  |
| 104 - 100 =  | 4 /50 =      | 1   |              | x \$250.00                              | \$ 250.00 |                        |    |  |  |                       |    |  |  |
| Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).   |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| CLAIMS   | N            | NUMBER FILED  | NUMBER EXTRA | RATE                                    | \$        |                        |    |  |  |                       |    |  |  |
| Total claims   |              | 26 - 20 =   | 6            | x \$50.00                               | \$ 300.00 |                        |    |  |  |                       |    |  |  |
| Independent claims   |              | 3 - 3 =   | 0            | x \$200.00                              | \$ 0.00   |                        |    |  |  |                       |    |  |  |
| MULTIPLE DEPENDENT CLAIM(S) (if applicable)  |              |   |              | + \$360.00                              | \$ 0.00   |                        |    |  |  |                       |    |  |  |
| <b>TOTAL OF ABOVE CALCULATIONS = \$ 1550.00</b>  |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by ½.   |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| <b>SUBTOTAL = \$ 1550.00</b>   |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).  |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| <b>TOTAL NATIONAL FEE = \$ 1550.00</b>   |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property   |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| <b>TOTAL FEES ENCLOSED = \$ 1550.00</b>  |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">Amount to be refunded:</td> <td style="width: 30%; text-align: right;">\$</td> </tr> <tr> <td colspan="2" style="height: 20px;"></td> </tr> <tr> <td>Amount to be charged:</td> <td style="text-align: right;">\$</td> </tr> <tr> <td colspan="2" style="height: 20px;"></td> </tr> </table>   |              |   |              |   |           | Amount to be refunded: | \$ |  |  | Amount to be charged: | \$ |  |  |
| Amount to be refunded:   | \$           |   |              |   |           |                        |    |  |  |                       |    |  |  |
|  |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| Amount to be charged:  | \$           |   |              |   |           |                        |    |  |  |                       |    |  |  |
|  |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| a. <input type="checkbox"/> A check in the amount of \$ _____ to cover the above fees is enclosed.<br>b. <input checked="" type="checkbox"/> Please charge my Deposit Account No. <u>50-0893</u> in the amount of \$ <u>1550.00</u> to cover the above fees. A duplicate copy of this sheet is enclosed.<br>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>50-0893</u> . A duplicate copy of this sheet is enclosed.<br>d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.   |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| SEND ALL CORRESPONDENCE TO:<br><br>Quine Intellectual Property Law Group, P.C.<br>P.O. BOX 458<br>Alameda, CA 94501<br>United States of America  |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| <br>SIGNATURE<br>Edward J. DesJardins, Ph.D.  |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| NAME<br>51,162   |              |   |              |   |           |                        |    |  |  |                       |    |  |  |
| REGISTRATION NUMBER  |              |   |              |   |           |                        |    |  |  |                       |    |  |  |

10/563655  
IAP15 Rec'd PCT/PTO 05 JAN 2006

**Certificate of Mailing**

Attorney Docket No.: 54-000410US  
"Express Mail" Label No.: EV 264208468 US  
Date of Deposit: 5 January 2006

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above, addressed to: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

By: Deborah Berwick  
Deborah Berwick

Enclosed:

- PTO form 1390 (in duplicate)
- Application Data Sheet
- Copy of PCT Publication
- Signed Declaration
- Preliminary Amendment
- Statement Accompanying Sequence Listing
- Paper copy of Sequence Listing
- Diskette
- Postcard